

Title (en)
MATERIAL FOR COLD-ROLLED STAINLESS STEEL SHEETS AND MANUFACTURING METHOD THEREFOR

Title (de)
MATERIAL FÜR KALTGEWALZTE NICHTROSTENDE STAHLBLECHE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
MATÉRIAUX POUR FEUILLE D'ACIER INOXYDABLE LAMINÉE À FROID ET SON PROCÉDÉ DE FABRICATION

Publication
EP 3318649 A1 20180509 (EN)

Application
EP 15897075 A 20150702

Priority
JP 2015003340 W 20150702

Abstract (en)
Provided are a material for cold rolled stainless steel sheets having sufficient corrosion resistance, excellent surface quality, excellent formability, and excellent ridging resistance; a method for manufacturing the same; and a cold rolled steel sheet. A material for cold rolled stainless steel sheets according to the present invention contains C: 0.005% to 0.025%, Si: 0.02% to 0.50%, Mn: 0.55% to 1.0%, P: 0.040% or less, S: 0.01% or less, Cr: 15.5% to 18.0%, Ni: 0.01% to 1.0%, Al: 0.001% to 0.10%, and N: 0.005% to 0.025% on a mass basis, the remainder being Fe and inevitable impurities, and has a metallographic structure containing 5% to 20% of a martensite phase in terms of volume fraction, the remainder being a ferrite phase. Furthermore, the proportion of selectively dissolved ferrite phase grain boundaries among ferrite phase grain boundaries exposed on a surface of a steel sheet is 20% or less of the total length of grain boundaries.

IPC 8 full level

C21D 6/00 (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01);
C22C 38/06 (2006.01); **C22C 38/40** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01);
C22C 38/50 (2006.01); **C22C 38/52** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP KR US)

C21D 6/02 (2013.01 - EP US); **C21D 8/0226** (2013.01 - EP KR US); **C21D 8/0236** (2013.01 - EP KR US); **C21D 8/0263** (2013.01 - EP US);
C21D 9/46 (2013.01 - EP KR US); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US);
C22C 38/004 (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US);
C22C 38/06 (2013.01 - EP US); **C22C 38/40** (2013.01 - EP KR US); **C22C 38/42** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US);
C22C 38/46 (2013.01 - EP KR US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/52** (2013.01 - EP US);
C22C 38/54 (2013.01 - EP KR US); **C23G 1/08** (2013.01 - KR); **C21D 2211/005** (2013.01 - EP KR US); **C21D 2211/008** (2013.01 - EP KR US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3318649 A1 20180509; EP 3318649 A4 20180704; EP 3318649 B1 20190911; CN 107709591 A 20180216; CN 107709591 B 20190913;
ES 2750684 T3 20200326; JP 5907320 B1 20160426; JP WO2017002148 A1 20170629; KR 102026228 B1 20190927;
KR 20180009775 A 20180129; TW 201702407 A 20170116; TW I555858 B 20161101; US 10801084 B2 20201013;
US 2018363083 A1 20181220; WO 2017002148 A1 20170105

DOCDB simple family (application)

EP 15897075 A 20150702; CN 201580081304 A 20150702; ES 15897075 T 20150702; JP 2015003340 W 20150702;
JP 2015552677 A 20150702; KR 20177036668 A 20150702; TW 104122005 A 20150707; US 201515737045 A 20150702